

Appendix B



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PDB ID or keywords Author

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Help Structure Summary Biology & Chemistry Materials & Methods Sequence Details Nomenclature

- Home
- Download Files
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- Display Molecule
- Structural Reports
- External Links
- Structure Analysis
- Help

1 X

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1fxs [N] [C]

DOI 10.2210/pdb1fxs/pdb

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Title GDP-FUCOSE SYNTHETASE FROM ESCHERICHIA COLI COMPLEX WITH NADP

Authors Somers, W.S., Stahl, M.L., Sullivan, F.X.

Primary Citation Somers, W.S., Stahl, M.L., Sullivan, F.X. (1998) GDP-fucose synthetase from *Escherichia coli*: structure of a unique member of the short-chain dehydrogenase/reductase family that catalyzes two distinct reactions at the same active site. *Structure* 6: 1601-1612 [Abstract]

History Deposition 1998-09-01 Release 1999-08-26

Experimental Method Type X-RAY DIFFRACTION Data N/A

Parameters	Resolution [Å]	R-Value	R-Free	Space Group
	2.30	0.163 (obs.)	n/a	P 3 ₁ 2 1
Unit Cell	Length [Å]	a	b	c
	Angles [°]	alpha	beta	gamma
		104.20	104.20	75.10
		90.00	90.00	120.00

Molecular Description
Asymmetric Unit Polymer 1 Molecule PROTEIN (GDP-FUCOSE SYNTHETASE) Chain A

Classification

Source	Polymer 1	Scientific Name	Escherichia coli	Common Name	Bacteria	Expression system	Escherichia coli
Related PDB Entries	1BSV	Details	null				
Ligand Chemical Component	Identifier	Name	Formula	Drug Similarity	Reaction	Ligand Structure	
	NAP	NADP NICOTINAMIDE-ADENINE-DINUCLEOTIDE PHOSPHATE	C ₂₁ H ₂₆ H ₇ O ₁₃ P ₃	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	[View]	
SCOP Classification (version 1.27)	Domain info	Class	Fold	Superfamily	Family	Domain	Species
	dtfxa_	Alpha and beta proteins (a/b)	NAD(P)-binding Rossmann-fold domains	NAD(P)-binding Rossmann-fold domains	Tyrosine-dependent oxidoreductases	Domain GDP-4-keto-6-oxo-5-methylidene-2-oxo-3-oxopropionate synthetase	Esche
CATH Classification (version v1.1.6)	Domain	Class	Architecture	Topology	Homology		
	1hsa01	Alpha Beta	3-1 layer(aba) Sandwich	Rossmann fold	NAD(P)-bindi		
	1hsa02	Alpha Beta	Alpha-Beta Complex	IDP-galactose 4-epimerase, domain 1	UDP-galactose 4-epimerase, domain 1		
PFAM Classification	Chain	PFAM Accession	PFAM ID	Description	Type	Chain ID	
	A	PF01370 [C]	Epimerase	NAD dependent epimerase/dehydratase family	Family	NADP_Rossm	
GO Terms	Polymer	Molecular Function	Biological Process	Cellular Component			
	PROTEIN (GDP-FUCOSE SYNTHETASE) (1FXS A)	<ul style="list-style-type: none"> catalytic activity coenzyme binding 	<ul style="list-style-type: none"> cellular metabolic process 	<ul style="list-style-type: none"> none 			

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Biological Molecule

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* Capable of displaying biological

0.000000